

WHAT IS CLAIMED IS:

1                   1.       A computer-implemented method of constructing a portfolio having a  
2 utility defined by at least a first function and a second function, the computer-implemented  
3 method comprising:  
4                   selecting a plurality of assets in the portfolio; and  
5                   maximizing an expected utility of the portfolio; wherein the at least first  
6 function is a power-utility function having a first power defining the degree of risk aversion  
7 of a holder of the portfolio and wherein the at least second function is a power-utility function  
8 having a second power defining the degree of risk aversion of the holder of the portfolio,  
9 wherein the first power is different from the second power.

1                   2.       The method of Claim 1 wherein the at least first power-utility function  
2 defines the utility of the portfolio for positive rates of returns and wherein the at least second  
3 power-utility function defines the utility of the portfolio for negative rates of returns.

1                   3.       The method of Claim 1 wherein the at least first power-utility function  
2 is a log-utility function.

1                   4.       The method of Claim 2 wherein the at least first power-utility function  
2 is a log-utility function.

1                   5.       The method of Claim 4 wherein the act of maximizing the expected  
2 utility of the portfolio further comprises the act of selecting a weight for each asset in the  
3 portfolio.

1                   6.       The method of Claim 5 wherein the act of selecting a weight for each  
2 asset in the portfolio further comprises:  
3                   assigning a probability point to the occurrence of each one of a plurality of  
4 economic events;  
5                   computing the utility of the portfolio for each economic event;  
6                   multiplying the utility of portfolio computed for each economic event with the  
7 probability of the occurrence of that economic event thereby generating a plurality of values;  
8 and  
9                   summing the values.

1                   7.       The method of Claim 6 wherein the act of assigning a probability point  
2 to the occurrence of each one of the plurality of economic events comprises assigning a  
3 probability point to the occurrence of each one of the plurality of economic events based on  
4 past economic data.

1                   8.       A computer system for constructing a portfolio having a utility defined  
2 by at least a first function and a second function, the computer system comprising:  
3                   a processor; and  
4                   a memory coupled to the processor, said memory storing a plurality of code  
5 modules for execution by the processor, the plurality of code modules comprising:  
6                   a code module for selecting a plurality of assets in the portfolio; and  
7                   a code module for maximizing an expected utility of the portfolio; wherein the  
8 at least first function is a power-utility function having a first power defining the degree of  
9 risk aversion of a holder of the portfolio and wherein the at least second function is a power-  
10 utility function having a second power defining the degree of risk aversion of the holder of  
11 the portfolio, wherein the first power is different from the second power.

1                   9.       The computer system of Claim 8, wherein the code module for  
2 maximizing the expected utility of the portfolio comprises code for the at least first function  
3 defining positive rates of returns and wherein the code module for maximizing the expected  
4 utility of the portfolio comprises code for the at least second function defining negative rates  
5 of returns.

1                   10.      The computer system of Claim 8, wherein the code module for  
2 maximizing the expected utility of the portfolio comprises code for the at least first function  
3 that is a log-utility function.

1                   11.      The computer system of Claim 9, wherein the code module for  
2 maximizing the expected utility of the portfolio comprises code for the at least first function  
3 that is a log-utility function.

1                   12.      The computer system of Claim 11 wherein the code module for  
2 maximizing the expected utility of the portfolio further comprises a code module for  
3 selecting a weight for each one of the plurality of assets in the portfolio.

1                   13.     The computer system of Claim 12, wherein the code module for  
2 selecting a weight for each one of the plurality of assets in the portfolio further comprises:  
3                   code module for assigning a probability point to the occurrence of each one of  
4 a plurality of economic events;  
5                   code module for computing the utility of the portfolio for each one of the  
6 plurality of economic events; and  
7                   code module for multiplying the utility of the portfolio computed for each one  
8 of the plurality of economic events with the probability of the occurrence of that economic  
9 event thereby generating a plurality of values; and  
10                  code module for summing the values.

1                   14.     A computer program for constructing a portfolio having a utility  
2 defined by at least a first function and a second function, the computer program being  
3 executable by a processor and comprising:  
4                   a code module for selecting a plurality of assets in the portfolio; and  
5                   a code module for maximizing an expected utility of the portfolio; wherein the  
6 at least first function is a power-utility function having a first power defining the degree of  
7 risk aversion of a holder of the portfolio and wherein the at least second function is a power-  
8 utility function having a second power defining the degree of risk aversion of the holder of  
9 the portfolio, wherein the first power is different from the second power.

1                   15.     The computer program of Claim 14, wherein the code module for  
2 maximizing the expected utility of the portfolio comprises code for the at least first function  
3 defining positive rates of returns and wherein the code module for maximizing the expected  
4 utility of the portfolio comprises code for the at least second function defining negative rates  
5 of returns.

1                   16.     The computer program of Claim 14, wherein the code module for  
2 maximizing the expected utility of the portfolio comprises code for the at least first function  
3 that is a log-utility function.

1                   17.     The computer program of Claim 15, wherein the code module for  
2 maximizing the expected utility of the portfolio comprises code for the at least first function  
3 that is a log-utility function.

1           18.     The computer system of Claim 17 wherein the code module for  
2 maximizing the expected utility of the portfolio further comprises a code module for selecting  
3 a weight for each one of the plurality of assets in the portfolio.

1           19.     The computer system of Claim 18, wherein the code module for  
2 selecting a weight for each one of the plurality of assets in the portfolio further comprises:  
3                 code module for assigning a probability point to the occurrence of each one of  
4 a plurality of economic events;  
5                 code module for computing the utility of the portfolio for each one of a  
6 plurality of economic events; and  
7                 code module for multiplying the utility of the portfolio computed for each one  
8 of the plurality of economic events with the probability of the occurrence of that economic  
9 event thereby generating a plurality of values; and  
10                code module for summing the values.

1           20.     A networked system for constructing a portfolio having a utility  
2 defined by at least a first function and a second function, the networked system comprising:  
3                 a communication network;  
4                 a computer system coupled to the communication network;  
5                 a database coupled to the communication network;  
6 wherein the computer system is configured to:  
7                 select a plurality of assets in the portfolio; and  
8                 maximize an expected utility of the portfolio; wherein the at least first  
9 function is a power-utility function having a first power defining the degree of risk aversion  
10 of a holder of the portfolio and wherein the at least second function is a power-utility function  
11 having a second power defining the degree of risk aversion of the holder of the portfolio,  
12 wherein the first power is different from the second power.

1           21.     The networked system of Claim 20 , wherein the at least first function  
2 defines positive rates of returns of the portfolio and wherein the at least second function  
3 defines negative rates of returns of the portfolio.

1           22.     The networked system of Claim 20, wherein the at least first function  
2 is a log-utility function.

1                   23.     The networked system of Claim 21, wherein the at least first function  
2 is a log-utility function.

1                   24.     The networked system of Claim 23, wherein the networked system is  
2 further configured to select a weight for each asset in the portfolio.

1                   25.     The networked system of Claim 23, wherein the computer system is  
2 further configured to:

3                   assign a probability point to the occurrence of each one of a plurality of  
4 economic events;

5                   compute the utility of the portfolio for each one of the plurality of economic  
6 events;

7                   multiply the utility of portfolio computed for each economic event with the  
8 probability of the occurrence of that economic event thereby generating a plurality of values;  
9 and

10                  sum the values.

1                   26.     A computer program stored on a computer-readable medium for  
2 constructing a portfolio having a utility defined by at least a first function and a second  
3 function, the computer program comprising:

4                   code for selecting a plurality of assets in the portfolio; and

5                   code for maximizing an expected utility of the portfolio; wherein the at least  
6 first function is a power-utility function having a first power defining the degree of risk  
7 aversion of a holder of the portfolio and wherein the at least second function is a power-  
8 utility function having a second power defining the degree of risk aversion of the holder of  
9 the portfolio, wherein the first power is different from the second power.

1                   27.     The computer program of Claim 26, wherein the code for maximizing  
2 the expected utility of the portfolio comprises code for the at least first function defining  
3 positive rates of returns and wherein the code for maximizing the expected utility of the  
4 portfolio comprises code for the at least second function defining negative rates of returns.

1                   28.     The computer system of Claim 26, wherein the code for maximizing  
2     the expected utility of the portfolio comprises code for the at least first function that is a log-  
3     utility function.

1                   29.     The computer system of Claim 27, wherein the code for maximizing  
2     the expected utility of the portfolio comprises code for the at least first function that is a log-  
3     utility function.

1                   30.     The computer program of Claim 29 wherein the code for maximizing  
2     the expected utility of the portfolio further comprises code for selecting a weight for each  
3     asset in the portfolio.

1                   31.     The computer program of Claim 30, wherein the code for selecting a  
2     weight for each asset in the portfolio further comprises:

3                   code for assigning a probability point to the occurrence of each one of a  
4     plurality of economic events;

5                   code for computing the utility of the portfolio for each one of the plurality of  
6     economic events;

7                   code for multiplying the utility of portfolio computed for each economic  
8     event with the probability of the occurrence of that economic event thereby generating a  
9     plurality of values; and

10                  code for summing the values.